



**KERR-McGEE CORPORATION**

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

F. A. McPHERSON  
VICE PRESIDENT  
COAL AND NUCLEAR OPERATIONS

November 12, 1976

**RECEIVED**

NOV 16 1976

U. S. Geological Survey  
Carlsbad, N. M.

Mr. Dave Stewart  
Area Mining Supervisor  
U.S. Geological Survey  
P. O. Box 1716  
Carlsbad, New Mexico 88220

Dear Mr. Stewart:


Please refer to your letter of September 20 to Mr. Jack Swales, Vice President, Kerr-McGee Nuclear Corporation, in regard to the conditions applicable to the approved Permit to Mine on properties known as Church Rock II and III Mines on Navajo Tribal Uranium Mining Leases 14-20-0603-9986, -9988 and -9992.

Members of Kerr-McGee Nuclear Corporation met with USGS and NMEIA representatives in Albuquerque, New Mexico, on November 4, discussing our proposals to meet the requirements of these conditions. In general, an acceptance of our proposal was voiced by the various regulatory representatives.

A response to each of the conditions given in your letter is given on the attached enclosure as modified by the discussions in these meetings. We believe that the enclosure fully describes Kerr-McGee's activity which we plan to meet the conditions. Where we are currently unable to describe our practices exactly, subsequent submittals will be directed to you after further on-site development has commenced.

We intend to keep your office fully informed as additional information is secured on the Church Rock II site and in this way evolve a plan that fully complies with the requirements of the conditions.

Very truly yours,

  
F. A. McPherson

wf

Enclosures

**KERR-McGEE CORPORATION**

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

CERTIFIED MAIL RETURN RECEIPT REQUESTED

May 14, 1982

Mr. Oscar Cabra, Chief  
Industrial Permits Sections (6AEP)  
U. S. Environmental Protection Agency  
Region VI  
First International Bank Building  
1201 Elm Street  
Dallas, Texas 75270

Re: NPDES Permit No. NM0020524 Kerr-McGee Nuclear Corporation  
Church Rock

Dear Mr. Cabra:

This amends the DMR submitted 04-29-82 to include trace metal analyses for molybdenum, selenium and vanadium levels.

The monitoring period covers the dates from January 1 through March 31, 1982. Should additional information be required, please contact me.

Sincerely,

A handwritten signature in dark ink, appearing to read 'W. J. Shelley'.

W. J. Shelley, Vice President  
Nuclear Licensing & Regulation

GMF/ba

NAME **KERR-MCGEE NUCLEAR CORP**  
 ADDRESS **MR. W. J. SHELLEY, DIRECTOR**  
**KERR-MCGEE CENTER**  
**OKLAHOMA CITY, OK 73125**  
 FACILITY  
 LOCATION

PERMIT NUMBER  
**NM0020524**

DISCHARGE NUMBER  
**001**

MONITORING PERIOD								
YEAR			MO			DAY		
FROM	80	7	01	TR	80	7	31	
	(20-21)	(2-23)	(21-25)	RU	(26-27)	(28-29)	(30-31)	

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53)			(4 Card Only) QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
Total Molybdenum	SAMPLE MEASUREMENT						0.46		1/7	24-hr. Comp.
	PERMIT REQUIREMENT					N/A			1/30	24-hr. Cor
Total Selenium	SAMPLE MEASUREMENT						0.038		1/7	24-hr. Comp.
	PERMIT REQUIREMENT					N/A			1/30	24-hr. Comp.
Total Vanadium	SAMPLE MEASUREMENT						0.012		1/7	24-hr. Comp.
	PERMIT REQUIREMENT					N/A			1/30	24-hr. Comp.
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER  
**F. McPherson, President**  
**Kerr-McGee Corporation**  
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 USC § 1001 AND 33 USC § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT  
*W. J. Shelley*

TELEPHONE  
**405 270-2631**  
 AREA CODE NUMBER  
 DATE  
**80 11 25**  
 YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

This is a corrected copy in reference to USEPA letter, November 14, 1980

GEOTECHNICAL INVESTIGATION REPORT

Church Rock Mine No. 2 - Surface Facilities

Kerr-McGee Nuclear Corporation

Church Rock, New Mexico

SHB Job No. E77-1016



SERGEANT, HAUSKINS & BECKWITH

CONSULTING SOIL AND FOUNDATION ENGINEERS  
PHOENIX • ALBUQUERQUE • EL PASO • TUCSON

Church Rock Mine No. 2  
Surface Facilities  
Kerr-McGee Nuclear Corporation  
Church Rock, New Mexico  
SHB Job No. E77-1016

1. INTRODUCTION

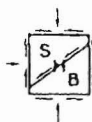
This report is submitted pursuant to a geotechnical investigation made by this firm of the site of the proposed surface facilities for Church Rock Mine No. 2 located approximately 20 miles northeast of Gallup, McKinley County, New Mexico. The object of this investigation was to evaluate the physical properties of subsoils and rock underlying the site to provide criteria for foundation design and slab support for the surface facilities. A secondary objective was to provide a preliminary evaluation of design considerations for the settling ponds, waste embankments and ore storage piles.

2. PROJECT DESCRIPTION

The proposed surface facilities will consist of three areas; shaft site, settling pond, and waste and ore storage (see site plan in Appendix A). The following information pertaining to these areas was provided by Mr. Ernest G. Kettner of Kerr-McGee Nuclear Corporation of Oklahoma City, Oklahoma.

A. Shaft Site Area

This area will contain the head frame structure, a steel frame building with plan dimensions of about 180 by 60 feet housing the hoist, warehouse and shop, a change house structure, also steel frame, with plan dimensions of about 60 by 140 feet, and



SERGENT, HAUSKINS & BECKWITH

CONSULTING SOIL AND FOUNDATION ENGINEERS  
PHOENIX • TUCSON • ALBUQUERQUE • EL PASO



an electrical substation and generator area. All of the buildings will be single story with no basements and slab-on-grade construction will be utilized.

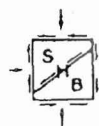
B. Settling Pond Area

The settling ponds will be from about 2 to 5 acres in size with a total depth of water of about 10 feet. It is assumed that the ponds will be constructed as a cut-fill operation borrowing from the pond bottoms to construct the perimeter berms. Due to the slope across the proposed site, it appears berm heights could range to about 20 feet on the western (lower) side of the site and the ponds would be entirely in cut on the eastern side.

C. Waste & Ore Storage Areas

These areas are located uphill to the south and east of the proposed settling pond area and are situated so that surface runoff will be toward the pond area. It is assumed that both the waste and the ore storage piles will be constructed in a fashion similar to those at the Church Rock Mine No. 1, i.e., the materials end-dumped and dozed into a pile. Since the gradation of the materials probably will be similar, it is assumed side slopes of these piles will be maintained similar to those at the Church Rock Mine No. 1.

Should details involved in final design vary significantly



SERGEANT, HAUSKINS & BECKWITH

CONSULTING SOIL AND FOUNDATION ENGINEERS  
PHOENIX • TUCSON • ALBUQUERQUE • EL PASO



# SERGEANT, HAUSKINS & BECKWITH

CONSULTING SOIL AND FOUNDATION ENGINEERS

APPLIED SOIL MECHANICS • ENGINEERING GEOLOGY • MATERIALS ENGINEERING

D. DWAIN SERGENT, P.E.  
DALE V. BEDENKOP, P.E.JOHN D. HAUSKINS, P.E.  
ROBERT D. BOOTH, P.E.GEORGE W. BECKWITH, P.E.  
BENNY E. MCILLAN, P.E.  
BUD WOODWARDNUCLEAR CORPORATION  
OKLAHOMA CITY, OKLA.

November 3, 1978

Kerr-McGee Nuclear Corporation  
Kerr-McGee Center  
Oklahoma City, Oklahoma 73125

SHB Job No. E78-1124

Attention: Mr. Joe Hodgson

Re: Church Rock Business Lease  
Church Rock, New Mexico

Gentlemen:

Our Soil and Foundation Investigation Report on the referenced project is herewith submitted. The report includes the results of test drilling, laboratory analysis, and recommended criteria for foundation design and slab support.

Should any questions arise concerning the report, we would be pleased to discuss them with you.

Respectfully submitted,

Sergeant, Hauskins &amp; Beckwith Engineers

By

Robert D. Booth, P.E.



Copies: Addressee (4)

REPLY TO: 2821 GIRARD BLVD., N.E., ALBUQUERQUE, NEW MEXICO 87107

PHOENIX  
(602) 272-6848ALBUQUERQUE  
(505) 345-8606EL PASO  
(915) 591-8188TUCSON  
(602) 884-9333